



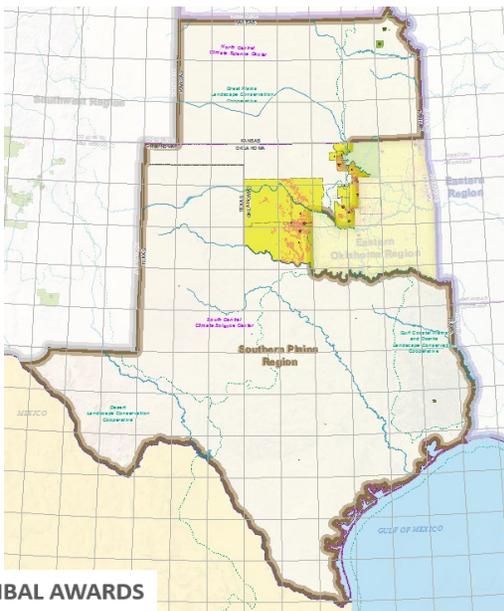
SOUTHERN PLAINS REGION

In the Southern Plains Region, analyzing climate change impacts is confounded by changing land development practices and increased variability in precipitation and recent extended drought.



CLIMATE IMPACTS

- Air Quality
- Extreme Drought
- Groundwater Depletion
- Forest Health
- Cultural Resources
- Wildlife Impacts
- Soil Health
- Altering crop growth cycles
- Heat Waves
- Forest Health



FUNDED STRATEGIES

BIA TCRP funded five vulnerability assessments for Citizen Potawatomi Nation, Fort Sill Apache, Wichita and Affiliated Tribes, Kaw Nation, and Otoe-Missouria Tribe with the support of the University of Oklahoma, College of Architecture, Regional and City Planning Division .

Each assessment focused on cultural resources, emergency management systems, flood and wildfire management, economic development, quality of life, water resources, food security, cultural impacts, and homeland resources. Surveys were conducted to gauge members perceptions of climate change, which also revealed an inherent ability to adapt to changing conditions and intense challenges. Next steps included hydrological studies, expanded water storage projects, additional conservation activities, and seeking additional funding sources. A video of lessons learned from the five case studies is available - <https://youtu.be/h69PWIwCXtY>

In 2012, the Kickapoo Tribe of OK completed a Climate Change Vulnerability Assessment (<http://bit.ly/2lZoysR>), which is being leveraged with BIA TCRP funding to develop a climate change adaptation plan for high-priority areas or interest.

The South Central Climate Science Center provides comprehensive training for both youth and adult climate in close coordination with the SPL Regional staff. The Southern Plains Region also served as a pilot for the first annual Youth Climate Photo Contest that BIA TCRP expanded nationally for K-12 students - <https://on.doi.gov/2lUfXXE>

EXAMPLE PROJECTS

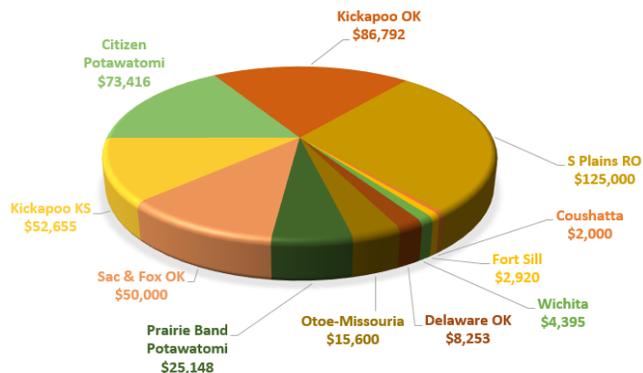
Vulnerability Assessment

Tribes in the area with the support of a local collage are preparing their communities to more sustainable planning through understanding vulnerability assessments on cultural and natural resources

Adaptation planning for high priority areas

Tribes in the region are concern how climate change might affect their natural environment specially their sacred lands

SOUTHERN PLAINS TRIBAL AWARDS





CLIMATE SCENARIOS

2035 and 2060 CMIP5 Climate Projections

From EPA CREAT Projection Map - <http://arcg.is/2cEzv2p>

Success at emissions controls over time, as well as development and population trends, will determine the degree of climate change we can anticipate. Managers should test the robustness of decision over a range of potential futures to reduce overall risks and costs.

DATA ANALYSIS EXAMPLE

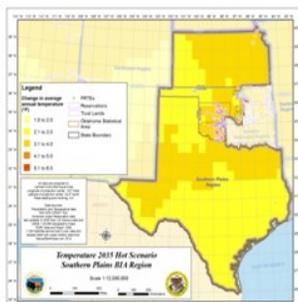
Wildland Fire Potential Data

USFS State and Private Forestry provides technical and financial assistance to manage and protect forest health and reduce wildfire risks.

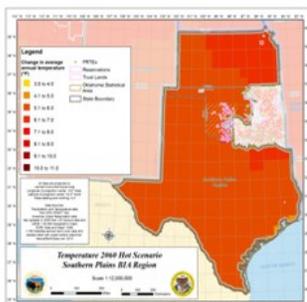
https://data.fs.usda.gov/geodata/state_private/nationaldata.php

Temperature Scenarios

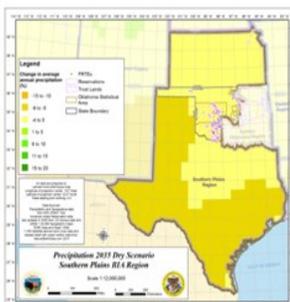
Precipitation Scenarios



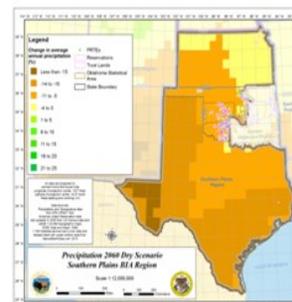
Hot 2035



Hot 2060



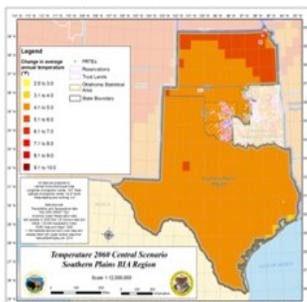
Dry 2035



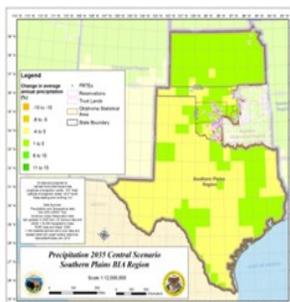
Dry 2060



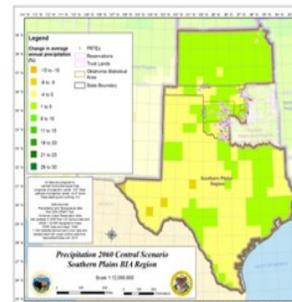
Central 2035



Central 2060



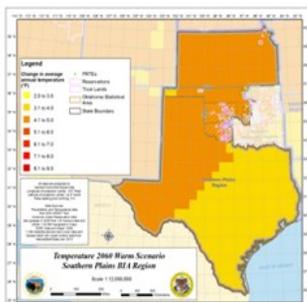
Central 2035



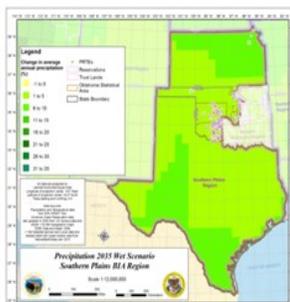
Central 2060



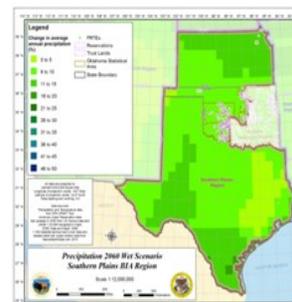
Warm 2035



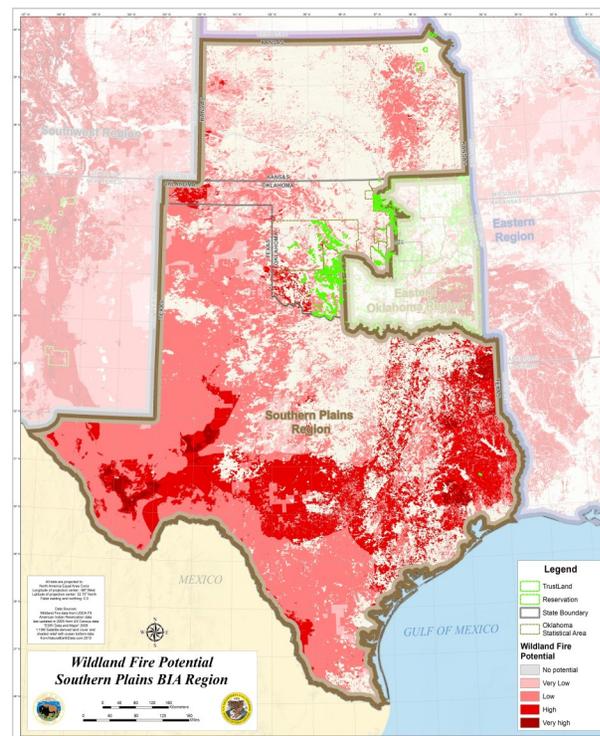
Warm 2060



Wet 2035



Wet 2060



Visit the Fires Science Exchange Network - <http://www.firescience.gov> to obtain information from local experts and scientists working in your area, attend training, share data, and plan and test management strategies together with others facing similar concerns. NASA North American Forest Dynamics consortia is also creating new variation products - <https://go.nasa.gov/2p1TGMS>